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June 18, 1999

Mr. Johnny Reising
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

Re: COMMENTS ON O & M MASTER PLAN FOR ARWWP

Dear Mr. Reising:

This letter provides Ohio Environmental Protection Agency comments on the Operations and Maintenance Master Plan for the Aquifer Restoration and Wastewater Project.

If you have any questions, please contact Tom Ontko or me.

Sincerely,

Tom Ontko

for Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Mark Shupe, HSI GeoTrans
Francie Hodge, Tetra Tech EM Inc.
Ruth Vandergrift, ODH

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Ohio Environmental Protection Agency Comments on the
Operations and Maintenance Master Plan for the
Aquifer Restoration and Wastewater Project

ıeral Comments

ımmenting Organization: Ohio EPA Commentor: DSW
:tion #: Pg #: Line #: Code: C
mment: It would be very helpful if all the sources, their flow, and their uranium ıcentrations (avg, max, min) were in one table.

ecific Comments

ɔmmenting Organization: Ohio EPA Commentor: DSW
ction #: 1.2 Pg #: 1-3 Line #: 6 Code: E
ɔmment: "affect" should be "effect"

ɔmmenting Organization: Ohio EPA Commentor: DSW
:ction #: Table 2-1 Pg #: 2-9 Line #: 05-1043 Code: C
ɔmment: This states that the water collected will be removed by means of floating outlet ructures. Is the floating outlet currently in use and is the plan to continue use of the floating ıtlet.

ommenting Organization: Ohio EPA Commentor: DSW
ection #: Figure 3-6 Pg #: n/a Line #: n/a Code: C
'omment: On the drawing of the storm sewer sub-surface drainage, the following is not lear:
in the east parking lot, north section, the drainage from the parking lot is difficult to discern rom the drainage that comes from the radiation control checkpoint and the administration ɔuildings. It appears as though these are linked so that the drainage from the radiation control :heckpoint and the administration buildings could be routed directly to the storm sewer outfall litch. Please provide more detail regarding these drainages.
-there is a line that enters the drawing from the south and connects with the system between the :wo basins. What area does this drain (assuming direction of flow is towards the basins).
-there is a pipe that drains into the east basin on the westerly side of the south end. This does not show on the drawing, what area does this pipe drain and what is the routing of the pipe.
-the drawing does not show the routing from the pump in the bottom of the storm water management pond in the waste pit area.
-this drawing and 3-7 have dashed lines, what are these.

Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.2.1.2 Pg #: 3-11 Line #: 12-17 Code: C

24) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Figure 5-1 Pg #: n/a Line #: n/a Code: C
Comment: The flow diagram shows the STP discharging to the Parshall Flume through the aeration tank and not through the AWWT. It was my understanding that the STP discharge does not pass through the aeration tank unless it has been routed through the AWWT for treatment. Please describe the flow path of the STP discharge as it is and the flow path with proposed changes to the system.

25) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.2 Pg #: 5-3 Line #: 7 Code: c
Comment: Provide an up-date on the "Sanitary Sewage System Investigation" . A draft version of this Plan was discussed in early February. The investigation was to look at causes and solutions to the unexpectedly high uranium concentrations found in the sanitary sewers.

26) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 5.2 Pg #: 5-2 Line #: 28 Code: E
Comment: The acronym BRSR does not appear in the acronym list.

27) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.4.1 Pg #: 5-5 Line #: 25 Code: c
Comment: This paragraph spreads it out a little too thick considering recent problems with the leachate transmission system. Why not justify the shut-down sequence by quoting typical uranium concentrations in OSDF leachate and waste pits liquids?

28) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.4.1 Pg #: 5-5 Line #: 31 Code: c
Comment: The text states that as a last resort if the BSL continues to rise, flows would be diverted to the AWWT Phase I system. Figure 5-1 does not show an "alternate flow arrow" into the AWWT Phase I treatment.

29) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.4.2.2 Pg #: 5-9 Line #: 18 Code: c
Comment: How was the 10 gpm contribution of dust control water to the SWRB estimated? We realize that some dust control water will inevitably reached the storm water control system, but this number seems high considered on an average annual basis.

30) Commenting Organization: Ohio EPA Commentor: DSW
Section #:5.4 Pg #: 5-4 Line #: 10-14 Code: C
Comment: We agree with the prioritization, however this prioritization for non-sanitary waste

streams does not seem consistent with actions taken at the site. For example ground water from the south plume extraction wells with total uranium levels at or near (in some cases below) the FRL are being pumped to treatment rather than being discharged directly to the river. This takes treatment capacity from wells with higher levels of total uranium or from treatment for surface or remediation waters. It would seem prudent and in line with the stated prioritization to separate low level ground water streams so that they could be discharged directly as more capacity is required for higher level waste streams.

31) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 5.4.1 & Figure 5-2 Pg #: 5-4 Line #: 28-32 Code: C
Comment: The "stop pumping" BSL freeboard level has been raised from 110" to 92". It would seem as though you would want to maximize the holding capacity of the BSL prior to cessation of pumping BSL water to treatment at the AWWT phase II, please explain why the base water level was raised.

32) Commenting Organization: Ohio EPA Commentor: DSW
Section #:5.4.1 Pg #: 5-5 Line #: 2-3 Code: C
Comment: This states that "...will be requested to terminate pumping..." What authority do the treatment operators have to cease influent pumping from the projects under the control of the contractors. For example if the WPRAP contractor wishes to continue pumping to the BSL for some reason specific to the contractors work on the WPRAP, and refuses to stop pumping, or "delays" response to the request, what recourse and/or contingency do the operators have.

33) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 5.4.1 Pg #: 5-7 Line #: 22-31 Code: C
Comment: Ohio EPA has expressed concern about the site's ability to process the volumes of wastewater for some time. We agree that the projection for AWWT Phase II capacity is a concern. Additionally capacity of the SWRB has been a concern. Although improvements have been made in the ability of the SWRB to handle significant precipitation events (lowering the base level, raising the bypass level, removing clean flows from the SWRB, etc.) we are not comfortable with the increases proposed, particularly with the high concentrations of uranium in these additional flows. Have other storage facilities for backwash been considered such as the HNT or the lime sludge lagoons and routing those to AWWT phase I?

34) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.4.2.2 Pg #: 5-9 Line #: 19 Code: c
Comment: The phase II system only treats 300 gpm. Why does it require backwashing at a rate of 100 gpm? It seems like one step backwards for every three steps forward.

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35) Commenting Organization: OEPA Commentor: HSI-GeoTrans, Inc.
Section #: 5.4.2.2 Pg. #: 5-9 Line # 10 Code: C
Comment: Text should be added to address the corrective actions referred to in Section 4.2.1.1 regarding (a) the increased pumping rate of discharge pumping and (b) the elimination of settling prior to pumpout.

36) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section # : 5.4.2.2 Pg. #: 5-9 Line # 24 Code: C
Comment: The reference to major storm events is confusing. Does this action apply only at times when there is a major storm event occurring? If so, the sentence should be reorganized to "During major storm events, cease the transfer of runoff collected in the SWU basins once the volume in the SWRB reaches half full. Do not begin the transfer until the event is over and the SWRB volume drops below half."

37) Commenting Organization: Ohio EPA Commentor: DSW
Section #:5.4.2.3 Pg #: 5-11 Line #: 11 Code: C
Comment: At the point ground water is no longer being pumped to the AWWT Phase I, it appears that it should be Case III however it indicates in the previous sentence that we are in Case II.

38) Commenting Organization: Ohio EPA Commentor: DSW
Section #:5.4.2.4 Pg #: 5-13 Line #: 5-13 Code: C
Comment: As indicated above, we are not comfortable with the additional flow and uranium from the backwash to the SWRB. Additional information about the potential effect on overflow/bypass events, as well as other options considered, is needed.

39) Commenting Organization: Ohio EPA Commentor: DSW
Section #:5.4.3 Pg #: 5-13 Line #: 14-25 Code: C
Comment: Is there a possibility that the AWWT expansion could be used to treat water from the SWRB?

40) Commenting Organization: Ohio EPA Commentor: DSW
Section #:5.4.3.1 Pg #: 5-14 Line #: 6-18 Code: C
Comment: What is the cost/benefit of breaking down the grouping of the wells further to segregate those with the lowest uranium concentrations and allowing them to bypass treatment more often?

41) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section # : 6.3.2 Pg. #: 6-11 Line # 19 Code: C

Comment: Additional detail regarding previous FEMP wastewater treatment system outages, either as a brief text discussion or as a summary table, would be useful to support the statement that no expected breakdown that should lead to a loss of treatment capability for longer than a few days is expected.

42) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section # : Appendix D Pg. #: 3 Line # 23 Code: E
Comment: For clarity, here and elsewhere in this appendix, the term "M-scope" should be replaced with "manually operated water level indicator."